

Appl. No. 09/641,104  
Amdt. Dated August 20, 2003  
Reply to Final Office Action of February 21, 2003

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **LISTING OF CLAIMS:**

Claims 1-8 (cancelled)

Claim 9 (withdrawn): Peptides covering parts of the LEF-1/TCF-4 transcription factors and their variants and mutants.

Claim 10 (withdrawn): Peptide according to claim 9 consisting of the 10-40 amino acid long sequences from the N-terminal area of LEF-1 or TCF-4.

Claim 11 (withdrawn): Peptide according to claims 9-10 consisting of the N-terminal amino acids 11-34 of LEF-1 of the following sequence

GDPELCATDEMIPFKDEGDPQKEK

Claim 12 (withdrawn): Peptide according to claims 9-10 consisting of the N-terminal amino acids 14-27 of LEF-1 of the following sequence

ELCATDEMIPFKDE

Claim 13 (withdrawn): Peptide according to claims 9-10 consisting of the N-terminal amino acids 7-29 of TCF-4 of the following sequence

GGDDLGANDELISFKDEGEQEKEK

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Claim 14 (withdrawn): Peptide according to claims 9-10 consisting of the N-terminal amino acids 10-23 of TCF-4 of the following sequence

DLGANDELISFKDE

Claim 15 (withdrawn): Peptide according to claims 9-14 wherein it contains acid amino acids at a distance of 5 amino acids flanked by hydrophobic amino acids and containing a basic amino acid.

Claim 16 (withdrawn): Use of peptides according to claims 9-15 for treating tumors wherein peptides are coupled with a second peptide and are thereupon applied in an appropriate form.

Claim 17 (withdrawn): Use according to claim 16 wherein antennapedia peptide RQIEIWFQNRMEWEE is used as second peptide.

Claim 18 (withdrawn): Use according to claim 16 wherein peptides and binding regions are modified to increase the stability (peptidomimetics).

Claim 19 (withdrawn): Use of peptides and binding regions according to claim 16 wherein their carbon skeleton is substituted by carbon skeletons with the same arrangement of functional groups (non-peptidomimetics).

Claims 20-28 (cancelled)

Claim 29 (withdrawn): Use of substances obtained by means of peptidomimetics or non-peptidomimetics from the claims 20-28.

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Claim 30 (withdrawn): Use of peptides and similar molecules according to claims 20-28 to build up agents for treating tumors, tissue and organic damage, e.g. psoriasis.

Claim 31 (withdrawn): Use of peptides and similar molecules according to claims 20-28 for screening substances which highly specifically inhibit or intensify one of the interactions of  $\beta$ -catenin with LEF/TCF, APC, conductin or E-cadherin.

Claim 32 (withdrawn): Use of peptides and similar molecules according to claims 20-28 inhibiting the interaction between  $\beta$ -catenin and LEF/TCF, APC, conductin or E-cadherin for treating tumors.

Claim 33 (withdrawn): Use of peptides and similar molecules according to claims 20-28 which promote the interaction between  $\beta$ -catenin and LEF/TCF, APC, conductin or E-cadherin for the regeneration of tissue and organs (e.g. for promoting growth of hair).

Claim 34 (withdrawn): ELISA for screening of substance libraries for components which affect the interaction between  $\beta$ -catenin and LEF-1/TCF, APC, conductin and E-cadherin.

Claim 35 (withdrawn): ELISA according to claim 35 containing peptides and mutants and similar molecules according to claims 9-15, 20-28 to identify substances for treating tumors, regeneration of tissue and organs.

Claim 36 (withdrawn): A peptide that affects the interaction of  $\beta$ -catenin and a transcription factor or tumor suppressor protein, wherein said peptide is selected from the group consisting of the peptides having the sequences shown in SEQ. ID. NO.: 1, SEQ. ID. NO.: 2, SEQ. ID. NO.: 3 and SEQ. ID. NO.: 4.

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Claim 37 (withdrawn): The peptide of claim 29, wherein the effect is to inhibit the interaction of  $\beta$ -catenin and said transcription factor or tumor suppressor protein.

Claim 38 (withdrawn): The peptide of claim 29, wherein the effect is to inhibit the interaction of  $\beta$ -catenin and a transcription factor or tumor suppressor protein selected from the group consisting of LEF-1, TCF-4, APC 15, conductin, E-cadherin and AP 20 amino acid repeats.

Claim 39 (currently amended) A peptide ~~derived from~~ obtained from the armadillo domain of  $\beta$ -catenin that affects the interaction of  $\beta$ -catenin and a transcription factor or tumor suppressor protein, wherein said peptide is selected from the group consisting of the peptides having the sequences shown in ~~SEQ. ID. NO.: 6, SEQ. ID. NO.: 7, SEQ. ID. NO.: 8, SEQ. ID. NO.: 9, SEQ. ID. NO.: 10, SEQ. ID. NO.: 11, and SEQ. ID. NO.: 12~~ SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, and SEQ ID NO: 12, or mutants ~~thereof of the protein of  $\beta$ -catenin, wherein said mutants is selected from the group consisting of a mutation in His 470, a mutation in Arg 469, a mutation in Trp 383, a mutation in Arg 386, or said mutants is selected from the group consisting of a mutation in Arg 386, a mutation in Phe 253, a mutation in Arg 274, a mutation in Trp 338, and a combination of any said mutations in Arg 386, Phe 253, Arg 274, and Trp 338.~~

Claim 40 (currently amended) The peptide of claim ~~[[32]]~~39, wherein the effect is to inhibit the interaction of  $\beta$ -catenin and said transcription factor or tumor suppressor protein.

Claim 41 (currently amended) The peptide of claim ~~[[32]]~~39, wherein the effect is to inhibit the interaction of  $\beta$ -catenin and a transcription factor or tumor suppressor protein selected from the

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group consisting of LEF-1, TCF-4, APC 15, conductin, E-cadherin and [[AP]] 20 amino acid repeats of APC.

Claims 42-43 (cancelled)